KÖGEL

NOVUM: LIGHT & STRONG

KÖGEL TELEMATICS

KÖGEL
Telematics

PASSION MEETS ENGINEERING ART:

PASSIONEERING FOR OUR CUSTOMERS

What's more exciting than the transport sector? The future of the transport sector! We passionately believe that to stay profitable, you have to stay ahead of the game – and our experience has shown that to be true.

Competitive pressure on our customers is building. That's why we want to lighten the load – along with the cargo that they transport with reliable Kögel trailers every day. A close, cooperative partnership with our customers is the starting point of all our innovations. Only then can we quickly identify their changing needs and requirements – and get the right solutions on the road. That's where engineering comes in, which we have loyally practised for over 80 years. Our commitment to uncompromising quality. And, of course, our dedicated professional team.

From practice to theory and from plan to practice: Passioneering never stops.

All our customers' challenges flow directly into the development process. We subject our innovations to intensive testing far beyond the usual requirements. Extreme driving manoeuvres, heavy loads, poor road surfaces, rain, ice, snow and scorching sun – our trailers have to withstand it all without a hitch. Only then are we satisfied – for now, at least. Because only then can we be sure that our most discerning customers are satisfied too. But the end of every development process is only the beginning of something new. After all, everything we do is with the future of the transport sector in mind.

Find out more about passioneering and our exceptional quality standards at
www.koegel.com

KÖGEL TELEMATICS

Kögel Telematics will get your vote! This innovative telematics system allows you to keep a watchful eye on your trailers even while they are on the road.

Kögel Trailer Telematic Module KTTM provides you with all recorded trailer data in real time and presents this data on an innovative, neatly laid out web portal.*

You can view current position data and the route that your trailer has travelled. Completed trips are analysed. You are always kept informed of driving times and downtimes and can view information showing where and when a trailer was loaded and unloaded.

Kögel Trailer Telematic Module KTTM is connected to the trailer's electronic braking system and interrogates data at fixed intervals. This captured EBS data gives you an insight into the trailer's status and the way in which it is being driven. As well as the trailer's current performance, you can also view the trailer's axle load, speed and braking response. Captured data is shown in clearly laid out diagrams that make it quick and easy to identify oscillations and overloading of axles and brakes.

In the case of refrigerated semi-trailers, you can keep a close eye on the cooling situation. Current temperatures measured by temperature sensors in the trailer body and changes in temperature can be looked up online for evidential purposes, even before a consignment reaches the customer. Refrigerated and box semi-trailers are also fitted with a door contact sensor. Door opening and closing are logged.

You can be notified of deviations from many setpoint values by e-mail or text message.
This includes, among other parameters, driving outside defined areas, changes in desired temperature and door opening.

Call up your data at any time from your structured, user-friendly Kögel Telematics web portal or by using the Kögel Telematics app when you are on the move.

Kögel Telematics allows you to analyse your trailer fleet's performance using many different evaluations and to optimise its capacity utilisation.

*Data communication and using the web portal incur monthly charges. The transmission intervals of the various models may differ.

3

KÖGEL TELEMATICS

Reap the benefits of a cost-effective, contemporary and reliable trailer telematics system. Kögel Telematics allows 24-hour monitoring of your trailer and delivers data in real time*.

"PosControl" shows the current* position and route of your trailer.

"TrailerControl" shows the current* coupling status, the opening state of the doors and the battery status as well as whether the ignition of the tractor unit is switched on or off.
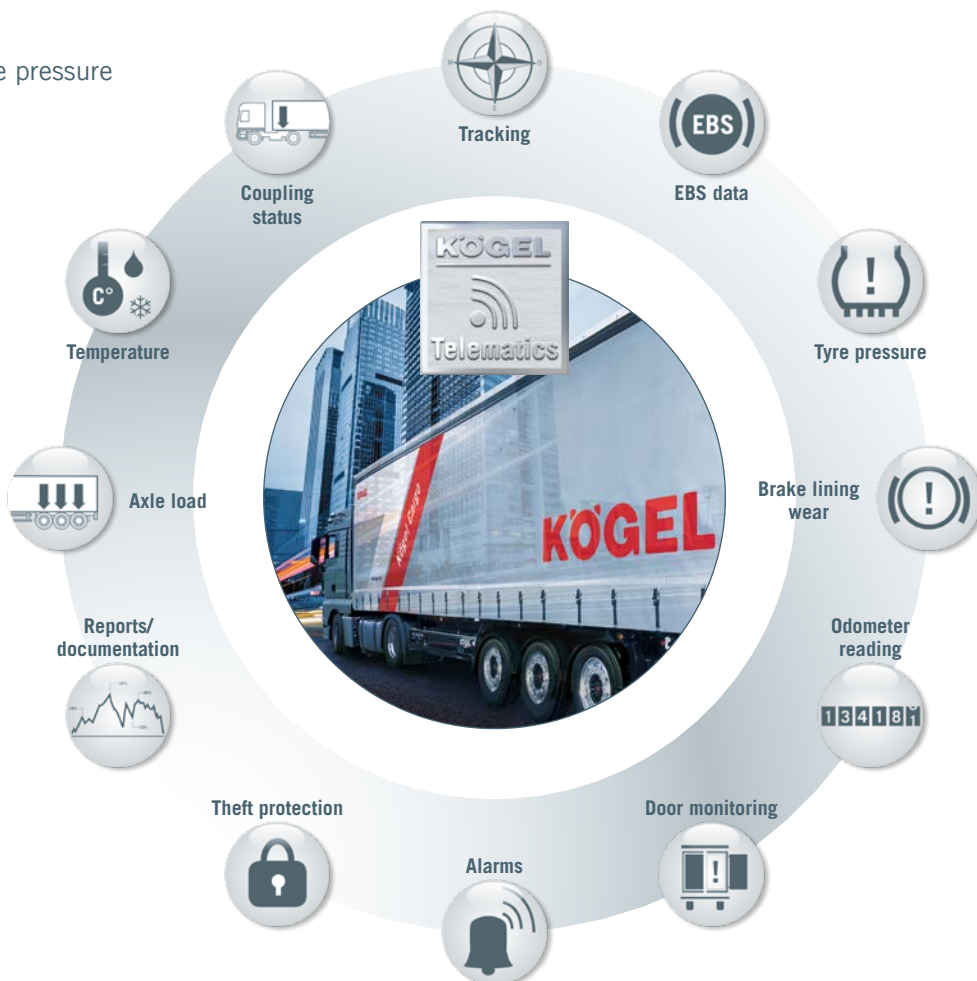
"TireControl" shows the tyre pressure and the tyre temperature.*

"EBSControl" provides information about the electronic braking system (EBS) such as mileage, speed, axle load, brake lining wear** etc.

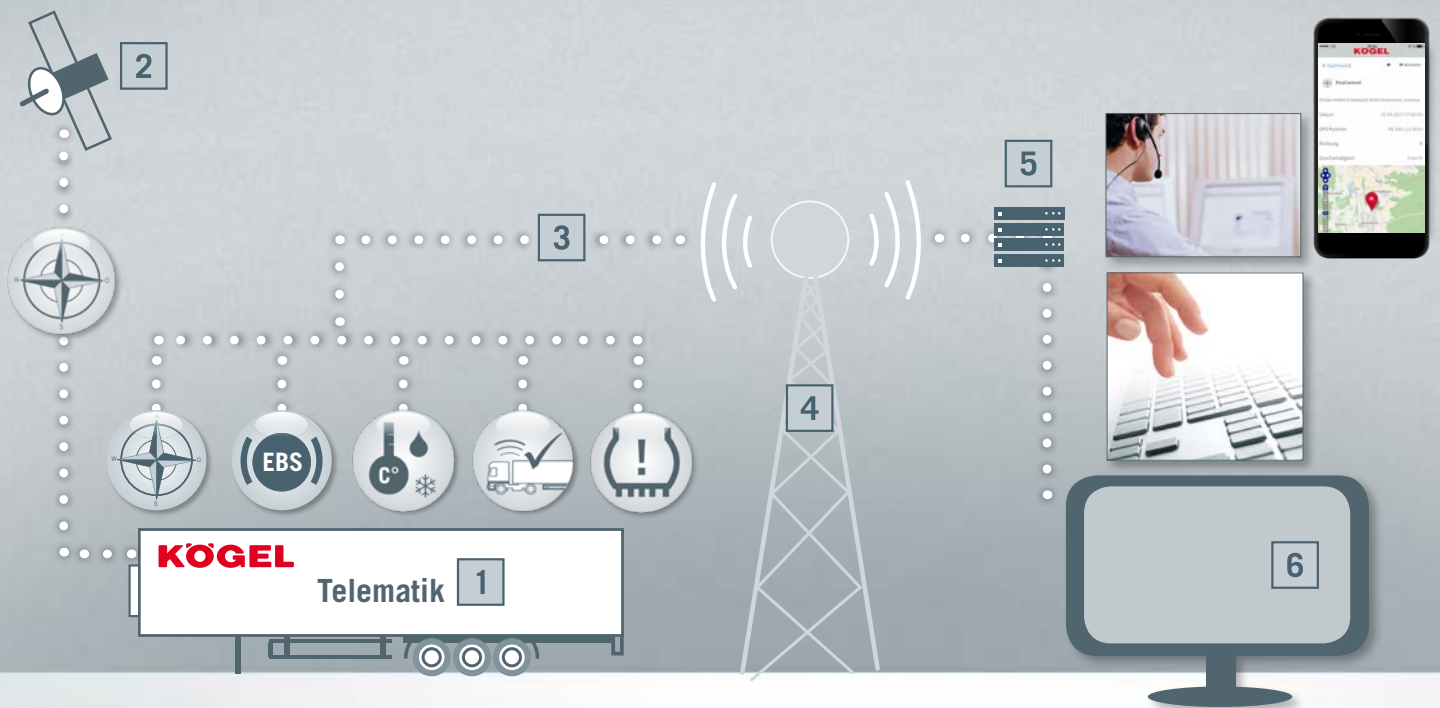**"TempControl"** helps to monitor the temperature inside the refrigerated box trailer and continuously monitors and documents the cooling chain.*

Tracking

Coupling status

EBS data

Temperature

Tyre pressure

Axle load

Brake lining wear

Reports/ documentation

Odometer reading

Theft protection

Alarms

Door monitoring

* Depending on the transmission rate and technical requirements.
** Optional features.

TELEMATICS

1. Kögel Trailer Telematic Module KTTM operates in the trailer as an intelligent communications hub
2. Precise determination of position data via satellite*
3. Transmission of available trailer data via mobile phone masts
4. Transmission of mobile communications data to the database server
5. Management of data in a database server and data provisioning for the web portal and the app
6. Access to all available information relating to the trailer or the entire trailer fleet via the web portal or the app. Option of managing data in an ERP system or in transport management software**

YOUR BENEFITS AT A GLANCE

✓ **Reduce operating costs**

✓ **Increase efficiency**

✓ **Transparency and optimisation of logistics processes**

✓ **Transparency regarding trailer status and availability**

✓ **Regulation and monitoring of load, e.g. temperature of the loading area of a refrigerated trailer**

✓ **All important trailer data is displayed on the web-based telematics portal at all times***

✓ **Trailer monitoring to prevent theft with timely alarms and location tracking of the trailer****

* Depending on the transmission rate and technical requirements. ** Depending on the available interface with the manufacturer/software.
*** Assuming the module is not faulty or has not been damaged.

5

KÖGEL TELEMATICS

Dashboard Fleet overview		
Dashboard		– Overview of entire trailer fleet – Status and load status of the trailers – Possibility of filtering by location, area, load status

PosControl Global positioning*		
Position		– Current location of individual trailers – Distances travelled – Trip analyses
Driving times/ downtimes		– Trailer analyses – Downtimes in specific areas
Geofencing		– Monitoring of areas defined on the web portal – Alarms on leaving and entering specific areas
Documentation		– Route control
Trip analyses		– Trips completed, filtered by date – Documentation of route travelled – Analysis of downtimes and breaks

TempControl* Information about the temperature and refrigeration unit		
Ambient temperature		– Indication of current temperature for each temperature sensor – Monitoring of the cooling temperature
Setpoints		– Indication of desired temperature set on the refrigeration unit in the refrigerated body
Refrigeration unit*		– Indication of refrigeration unit operating mode – Indication of operating hours (diesel/electric)
Documentation		– Cooling temperature profile – Export measured values as Excel or PDF file

* Depending on the transmission rate and technical requirements. * Depending on manufacturer and model.

TrailerControl
All the essential information about the trailer

Coupling status*		– Trailer coupled or uncoupled
Door contact switches**		– Door open or closed – Logging of opening and closing
Ignition		– Ignition switched on or off
Battery status		– State of charge of Telematic Module's built-in battery
Power supply		– Indication of power supplied by tractor unit or refrigeration unit

EBSControl
Trailer - EBS data in real time***

Mileage reading		– Mileage monitoring for trailers
Speed		– Indication of current speed
Axle load		– Indication of trailer's current axle unit load
EBS messages		– Indication of EBS messages (yellow/red)
Braking response		– ABS interventions – RSS interventions – Brake pressures determined
Brake lining wear***		– Timely planning of brake service – Damage prevention by timely replacement – Reduced downtime

* Coupling status is determined through the power supplied by the tractor unit. ** Only possible in case of box and refrigerated trailers.
*** Depending on the transmission rate and technical requirements. **** Optional

7

KÖGEL TELEMATICS

		TireControl Monitoring of tyre pressure and temperature	
Tyre pressure and tyre temperature		– Reduced wear, improved fuel savings when tyre pressure is set correctly – Improved safety thanks to alarm in event of loss of tyre pressure	

		Alarms* Configurable overarching alarms for entire trailer fleet	
Geofencing		– On leaving and/or entering defined areas – Areas are freely selectable, e.g. rectangle, circle, polygon	
Cooling temperature		– In event of deviation from desired temperature set on the refrigeration unit (setpoints)	
Tyre pressure		– In event of deviation from desired tyre pressure (range is freely selectable)	
Tyre temperature		– In event of elevated tyre temperature (range is freely selectable)	
Axle load		– If the trailer's permissible axle load is exceeded	
Module inactivity		– If the Telematic Module is inactive	
Battery		– If the Telematic Module's battery charge is low	

* Alarms by e-mail are free of charge, text message alarms incur charges.

KÖGEL TELEMATICS PACKAGES

We can offer you a Kögel Telematics package that is just right for your trailer – in exactly the same way as you choose a vehicle that perfectly matches your individual needs*.
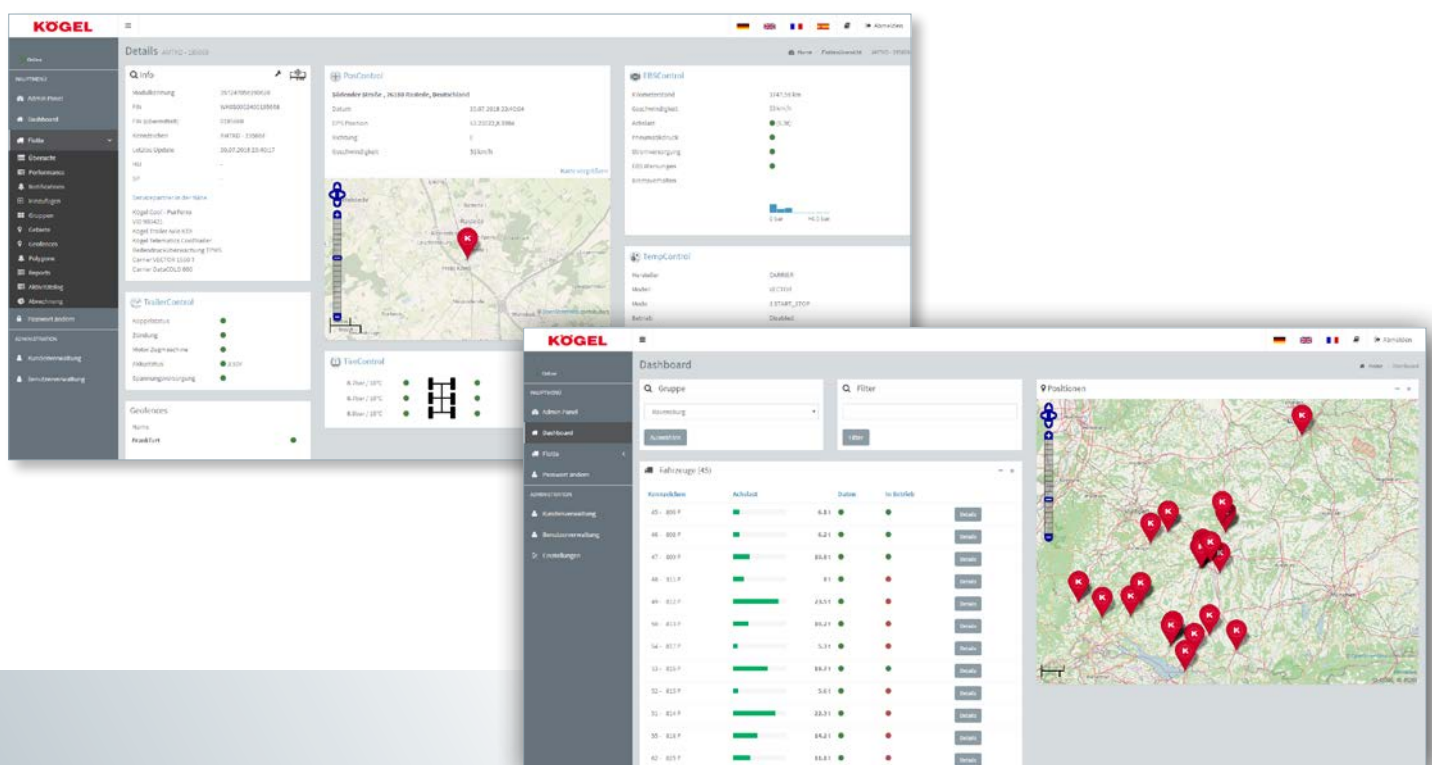
Telematics package	Trailers
BasicTrailer – Position in real time – EBS data – Battery, interface, EBS modulator – 15-minute transmission interval*	All trailers
BoxTrailer – Position in real time – EBS data – Battery, interface, EBS modulator – 15-minute transmission interval* – Door contact switches	Box bodies
CoolTrailer – Position in real time – EBS data – Battery, interface, EBS modulator – 5-minute transmission interval* – Connection to refrigeration unit and temperature recorder	Refrigerated semi-trailer

KÖGEL WEB PORTAL

You can access all data relating to your trailer via our structured, user-friendly web portal or by using the Kögel Telematics app*.

– Data is shown in real time**
– Position and status indications
  - Location, GPS position on map
  - Available EBS data (mileage, axle load, speed and much more besides)
  - Available cooling device and temperature data
– Presentation of reports: in graphical and/or numeric form
– Export of reports
– Trailer management (reference to next road worthiness test (HU) test and safety assessment (SP))
– Geofencing: Specification of geographical areas (using polygons)
– Alarm messages by text message or e-mail (e.g. on entering or leaving a geofenced area, in event of change of door status, temperature deviations and many other parameters)**
– Indication of nearest Kögel service partner in order to find the quickest route in the event of problems

* Available for free from App Store and Google Play.
** Depending on the transmission rate and technical requirements.

KÖGEL REPORTS & ANALYSES

All the data gathered by Kögel Telematics is presented to you in graphical and numeric form. As well as various efficiency analyses, you can also generate different reports for documentation purposes.

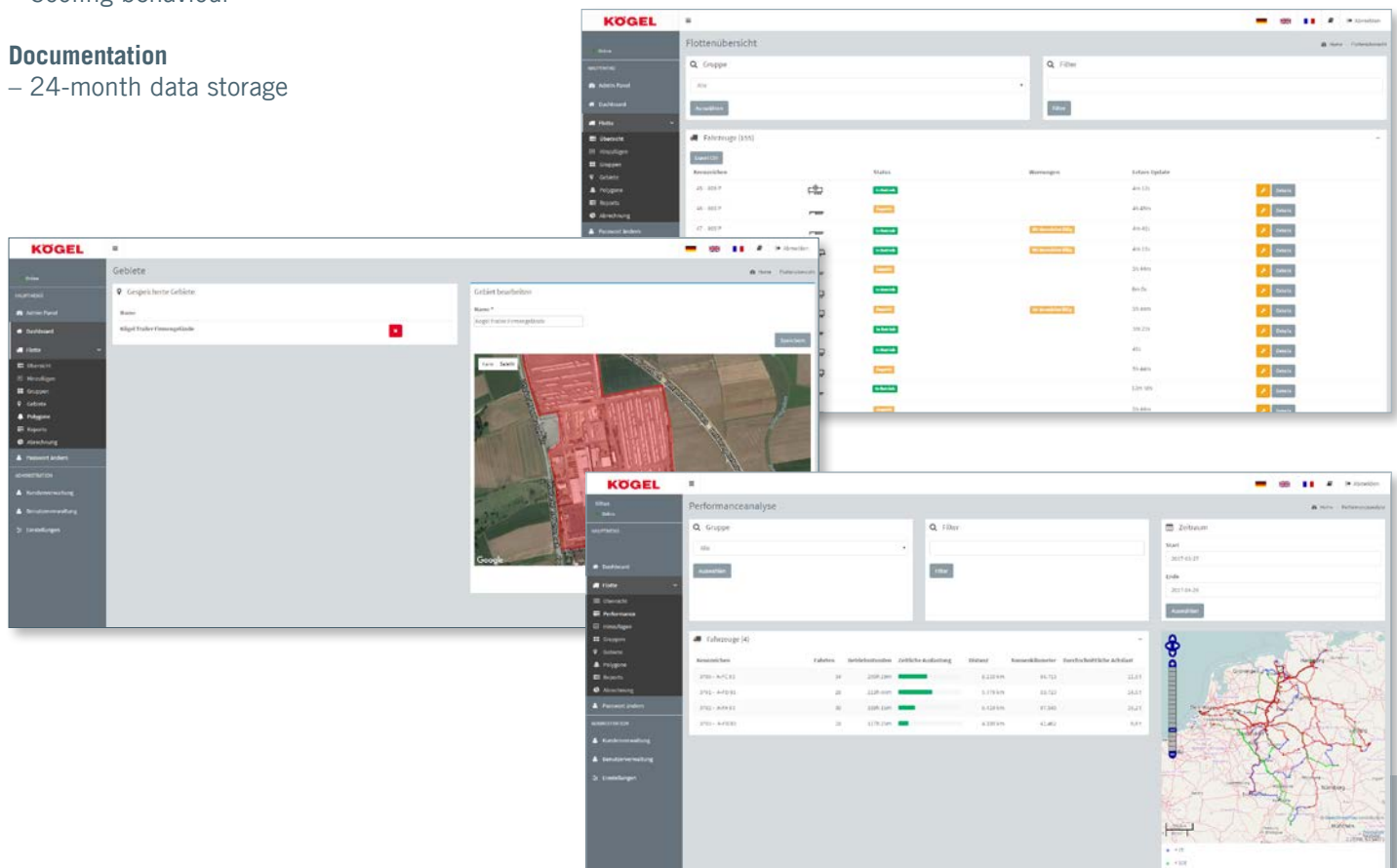## Reports and efficiency analyses*

Deployment and status reports*
– Trip analyses: Route progress, kilometres travelled, driving time
– Driving times and downtimes
– Speed profile
– Axle load, capacity utilisation
– Error messages from electronic braking system (EBS)
– Fleet evaluations: Trailer comparisons, capacity utilisation, downtimes and much more
– Activity report

Temperature reports*
– Temperature profiles from each sensor in a refrigerated semi-trailer
– Refrigeration status, performance
– Cooling behaviour

Documentation
– 24-month data storage

HARDWARE COMPONENTS

Kögel Trailer Telematic Module KTTM

– Waterproof and dust proof in compliance with IP6K9K

– Integrated antennas for GPS tracking

– Compatibility with common EBS systems such as Wabco and Haldex

– RS232 interface to temperature recorders by Carrier and Thermo King

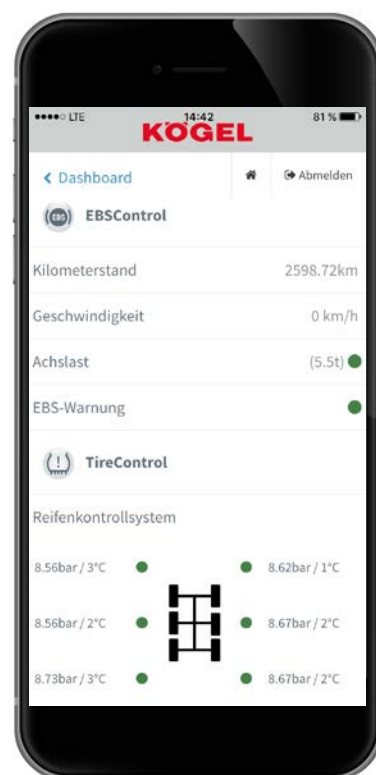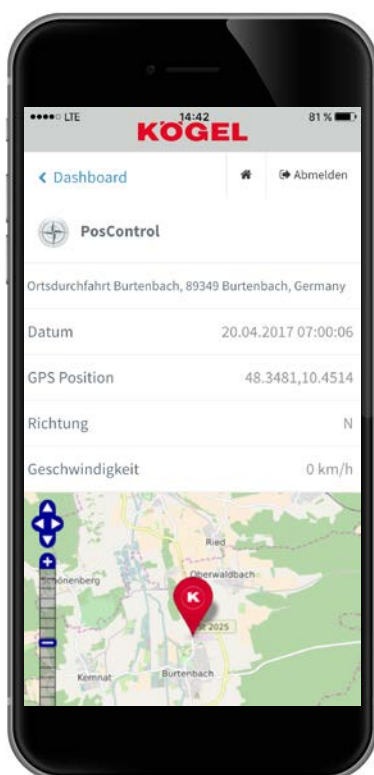– Interface to refrigeration units by Carrier and Thermo King

– Powerful battery

	TELEMATICS PACKAGES		
EQUIPMENT	**BASICTRAILER**	**BOXTRAILER**	**COOLTRAILER**
Door contact switches		✔	✔
Temperature recorders			✔
OPTIONS			
Tyre pressure monitoring system	✔	✔	✔
Brake lining wear sensor*	✔	✔	✔

KEEP A CLOSE EYE ON YOUR FLEET – EVEN WHEN YOU'RE ON THE MOVE

The Kögel Telematics app gives you real-time access** to all the important data for your entire trailer fleet, wherever you are! This means you are always kept informed of the current positions** of your trailers and can retrieve trailer-specific data conveniently, even when you are out of the office.

YOUR BENEFITS AT A GLANCE

✔ **Ease of use**
✔ **All data can be retrieved in real time, even when you are on the move**
✔ **Trailer and fleet information at a glance**
✔ **Overview of entire trailer fleet**
✔ **Specially optimised for use on smartphones and tablets**

KÖGEL TELEMATICS CONNECTIVITY

Do you already use a telematics system? That's no problem!

You can integrate captured Kögel telematics data in other software infrastructures easily via a standard Application Programming Interface (API). There are already many interfaces with transport management software, forwarding software and ERP systems. Contact us about this now.

Data is stored in our database and forwarded to your preferred system.
This is an ideal solution, especially for large fleets that have already integrated telematic data into their business processes. You can use Kögel telematic hardware and your data will be made available in your usual software environment.

YOUR BENEFITS AT A GLANCE

✓ **Trouble-free data transfer and data availability workflow**
✓ **Can be integrated into the system you are used to using**
✓ **No retraining required for your employees**

* € 0.14 (incl. VAT)/min. from German landline; max. mobile price: € 0.42 (incl. VAT)/per minute.

YOUR DIRECT LINE TO KÖGEL

For all questions about Kögel Telematics:

Kögel Trailer GmbH & Co. KG

Kögel Telematics

Am Kögel-Werk 1

89349 Burtenbach

GERMANY

Tel.:   + 49 8285 88-0*

E-mail: telematics@koegel.com

CONTACTS

Kögel Trailer GmbH & Co. KG

Kögel Telematics Department

Am Kögel-Werk 1
89349 Burtenbach
GERMANY

Tel.:   + 49 8285 88-0
Fax: + 49 731 9454-23494
E-mail: telematics@koegel.com

KÖGEL